

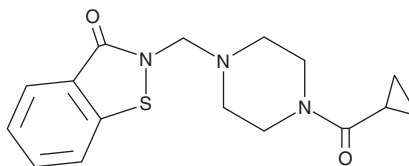
# PRODUCT INFORMATION



## LOC14

Item No. 17766

**CAS Registry No.:** 877963-94-5  
**Formal Name:** 2-[[4-(cyclopropylcarbonyl)-1-piperazinyl]methyl]-1,2-benzisothiazol-3(2H)-one  
**MF:** C<sub>16</sub>H<sub>19</sub>N<sub>3</sub>O<sub>2</sub>S  
**FW:** 317.4  
**Purity:** ≥90%  
**UV/Vis.:** λ<sub>max</sub>: 224, 317 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

LOC14 is supplied as a crystalline solid. A stock solution may be made by dissolving the LOC14 in the solvent of choice, which should be purged with an inert gas. LOC14 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of LOC14 in ethanol and DMSO is approximately 3 mg/ml and approximately 10 mg/ml in DMF.

LOC14 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, LOC14 should first be dissolved in ethanol or DMF and then diluted with the aqueous buffer of choice. LOC14 has a solubility of approximately 0.14 mg/ml in a 1:6 solution of ethanol:PBS (pH 7.2) and a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

LOC14 is an inhibitor of protein disulfide isomerase (PDI; K<sub>d</sub> = 62 nM).<sup>1</sup> It inhibits PDI chaperone activity in an insulin aggregation assay when used at a concentration of 75 μM. LOC14 reduces PC12 cell death induced by the misfolded huntingtin protein mHTT<sup>Q103</sup> (EC<sub>50</sub> = 500 nM). It reduces medium spiny neuron (MSN) degeneration in a rat postnatal cortical brain slice model of mHTT<sup>Q73</sup>-induced Huntington's disease.

### Reference

1. Kaplan, A., Gaschler, M.M., Dunn, D.E., *et al.* Small molecule-induced oxidation of protein disulfide isomerase is neuroprotective. *Proc. Natl. Acad. Sci. USA* **112**(17), E2245-E2252 (2015).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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